

ABSTRACT

Gear oils meeting GL-5 specifications are obtained by blending a base oil, a thermally stable phosphorus-containing anti-wear agent; and a metal-free sulfur-containing extreme-pressure agent; wherein the thermally stable phosphorus-containing anti-wear agent is present in an amount sufficient to provide from 100 to 350 ppm phosphorus to the formulated gear oil and wherein the metal-free sulfur-containing extreme-pressure agent is present in an amount sufficient to provide at least 10,000 ppm sulfur to the formulated gear oil and wherein the formulated gear oil contains 350 ppm of phosphorus or less.